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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,007	12/08/2003	Miyuki Enokida	00862.023348.	9140
5514 7590 08/17/2007 FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			EXAMINER KRASNIC, BERNARD	
			ART UNIT 2624	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/729,007	Applicant(s) ENOKIDA ET AL.	
	Examiner Bernard Krasnic	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12/08/2003 and 12/10/2004</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The Applicant elected on 7/27/2007 Group I, claims 1-13 without traverse.

Priority

2. The Examiner believes that the claims regarding the zero-length packets could only get priority back to Foreign Application JAPAN 2003-176930 06/20/2003. The Examiner has not seen any support for the zero-length packets in the other two Foreign Applications JAPAN 2002-356738 12/09/2002 and JAPAN 2003-201162 07/24/2003.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is suggested [or something similar]: -- GENERATING JPEG2000 ENCODED DATA IN A CLIENT MANAGED BY A SERVER --.

4. The disclosure is objected to because of the following informalities:

Page 1, line 4: The -- CROSS REFERENCE TO RELATED APPLICATIONS -- section of the specification is required to be placed above the "FIELD OF THE INVENTION" section to inform of any related applications, in this case the three Foreign applications JAPAN 2002-356738 12/09/2002, JAPAN 2003-176930 06/20/2003, and JAPAN 2003-201162 07/24/2003.

Appropriate correction is required.

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Claim Objections

5. Claims 1-2, 8, 10 and 12 are objected to because of the following informalities:

Claim 1, line 6, claim 10, line 9, claim 12, line 6 respectively: "the basis" should be -- a basis --.

Claim 2, line 6, claim 8, line 9 respectively: "by the independent" should be -- with the independent --.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

6. Claim 12 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 12 is drawn to functional descriptive material NOT claimed as residing on a computer readable medium. MPEP 2106.IV.B.1(a) (Functional Descriptive Material) states:

"Data structures not claimed as embodied in a computer-readable medium are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer."

"Such claimed data structures do not define any structural or functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized."

Claim 12, while defining a "program", does not define a "computer-readable medium" and is thus non-statutory for that reasons. A "program" can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The Examiner suggests amending the claim to embody the program on

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"computer-readable medium" in order to make the claim statutory. "A program for making a second computer" in claim 12 should be -- A computer-readable medium encoded with computer-readable instructions for causing the second computer --.

"comprising:" in line 4 of claim 12 is suggested to be -- the instructions comprising --.

Therefore claim 13 is suggested to be deleted; claim 13 is dependent upon claim 12.

"In contrast, a claimed computer-readable medium encoded with the data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory." - MPEP 2106.IV.B.1(a)

Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re Claim 1, lines 15-16, claim 5, lines 2-3, claim 10, lines 18-19, claim 12, lines 16-17 respectively: The limitation "segmenting the encoded data" renders this claim indefinite because it is unclear which encoded data is being referred to, the first or the second

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encoded data. It is suggested to be -- segmenting the second encoded data -- and it has been treated as such.

Re Claim 1, lines 19-20, claim 10, lines 22-23, claim 12, lines 20-21 respectively: The limitation "for each unit segmented" renders this claim indefinite because it is unclear what this unit is. It is suggested to be -- for each independent encoded data unit -- and it has been treated as such.

Re Claim 2: This claim is indefinite because the claim reads respectively that encoded data is substituted by independent encoded data when it is determined that the independent encoded data are stored. It is unclear why a substitution is made when it has been determined that the independent encoded data has already been stored.

Re Claim 3, lines 1-2: The limitation "the encoded data" renders this claim indefinite because it is unclear which encoded data is being referred to, the first or the second encoded data. It is suggested to be -- the second encoded data -- and it has been treated as such.

Re Claim 7: Claim 7 contains means plus function limitations while claim 1 is a method claim. Claim 7 is indefinite because it is improper to further limit a method claim by a system claim limitations. It is suggested to change the means plus function system

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language to method language such as for example "display means for displaying" to -- a display step of displaying --.

Re Claim 11: The limitations "The apparatus according to claim 9" and "the first and second computers" lack clear antecedent basis. It is suggested to be -- The apparatus according to claim 10 -- and it has been treated as such.

Re Claim 12, line 7-8: The limitation "the client" lacks clear antecedent basis. It is suggested to be -- the second computer -- and it has been treated as such.

Re Claim 12, lines 10 and 13: The limitation "the server" lacks clear antecedent basis. It is suggested to be -- the first computer -- and it has been treated as such.

Claims 4, 6, and 8 are dependent upon claim 1.

Claim 9 is dependent upon claim 2.

Claim 13 is dependent upon claim 12.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deshpande ("HTTP streaming of JPEG2000 images" – IEEE – 2001, pages 15-19) in view of Marcellin ("JPEG2000: Highly scalable image compression" – IEEE, April 2001, pages 268-272).

Re Claim 1 [as best understood by the Examiner]: Deshpande discloses an encoded data generation method for generating JPEG2000 encoded data / JPEG2000 encoded image data in a client / client or helper application which comprises storage means / computer memory that stores fragmentary first encoded data / lowest resolution version of encoded data managed by a server / web server (see Fig. 1, abstract, page 16, Section 2), comprising a calculation step of calculating / finding the appropriate byte-ranges on the index file for the ROI short second encoded data / zoom in out on ROI for new resolution version on the basis of encoded data required to generate the JPEG2000 encoded data in the client, and the first encoded data stored in the storage means (see Fig. 1, page 16, Section 2); a request step of requesting of the server the calculated second encoded data / request relevant parts (see Fig. 1, page 16, Section 2); an acquisition step of acquiring / progressive rendering the second encoded data from the server (see Fig. 1, page 16, Section 2); a storage step of storing the acquired second encoded data in the storage means / computer memory stores also the new resolution version data (see Fig. 1, page 16, Section 2); a segmentation step of segmenting / segmenting of dividing into tiles and precincts and components the

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encoded data / new resolution version into a plurality of independent encoded data / independently coded by interpreting header information / contribution information included in each packet header of the acquired second encoded data (see pages 16-17, Section 3); a determination step of determining for each unit segmented in the segmentation step if all encoded data which form the independent encoded data are stored in the storage means (see pages 16-17, Sections 3-4, the index file tells when the segmented data is stored because it is used to record the tile-part and header-part information retrieved progressively); and an output step of outputting the encoded data stored in the storage means as the JPEG2000 encoded data (see abstract, the JPEG2000 data is outputted, decoded and then displayed to the client).

However, Deshpande fails to specifically disclose a dummy storage step of storing, when not all encoded data which form the independent encoded data are stored, dummy encoded data in correspondence with non-stored encoded data.

Marcellin discloses a dummy storage step of storing, when not all encoded data which form the independent encoded data are stored, dummy encoded data in correspondence with non-stored encoded data (see page 271, Section 3.4, paragraphs 1-5, each tile-part and packet part that form the independent encoded data are recorded and record the rest as a zero length packets or empty packets).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Deshpande' method using Marcellin's teachings by including the zero length packet data or empty packet option of the specified

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JPEG2000 standard in order to allow the decoder to know if the packet is empty or not (see Marcellin, page 271, Section 3.4, paragraph 3).

Re Claim 2 [as best understood by the Examiner]: Deshpande further discloses substituting, when it is determined in the determination step that all encoded data which form the independent encoded data are stored in the storage means, the encoded data stored in the storage means by the independent encoded data segmented in the segmentation step (see pages 16-17, Sections 2-4).

Re Claim 3 [as best understood by the Examiner]: Deshpande further discloses the encoded data are processed for respective packets (see pages 16-17, Sections 2-3).

Re Claim 4: Marcellin further discloses the dummy encoded data is zero length packet data specified by JPEG2000 (see page 271, Section 3.4, paragraphs 1-5).

Re Claim 5 [as best understood by the Examiner]: Deshpande further discloses wherein the segmentation step includes a step of segmenting the encoded data into tiles each having a predetermined size (see pages 16-17, Sections 2-3).

Re Claim 6: Deshpande further discloses a change step of changing the header information / header of each independent encoded data to a size of each tile / length of tile segmented in the segmentation step (see page 17, Section 3).

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Re Claim 7 [as best understood by the Examiner]: Deshpande further discloses the client further comprises display means for displaying image data / display at a client, the first encoded data is encoded data of the image data (see Fig. 1, abstract, page 16, Section 2), and said method further comprises a setting step of setting the encoded data required in the calculation step in correspondence with movement or enlargement display / zoom in out of a display region of image data displayed on the display means (see page 16, Section 2); a decode step of decoding the JPEG2000 encoded data output in the output step (see abstract); and a display step of displaying the decoded image data on a screen of the display means (see abstract).

The limitation, as recited in claim 7, "display means" in line 2 invokes 35 U.S.C. 112, 6th paragraph.

Re Claim 8: Deshpande further discloses a substitution step of directly outputting, when it is determined in the determination step that all encoded data which form the independent encoded data are stored in the storage means, the main header associated with the unit for each unit segmented in the segmentation step, substituting an index of the unit by a predetermined index, and substituting an encoded data main body contained in the unit by the independent encoded data segmented in the segmentation step (see pages 16-17, Sections 2-4, as the resolution is progressively increased for the ROI, the zero length packets or empty packets that Marcellin disclosed are filled by substituting the main header, header, tile-part, packet-part information appropriately).

Although Deshpande as modified by Marcellin, as recited in claim 9, fail to specifically disclose the determination step, the dummy storage step, the substitution step, and the output step are parallelly processed for at least two units segmented in the segmentation step, it would have been obvious to one of ordinary skill in the art at the time the invention was made to parallelly process in order to speed up the computation time (it is well known that parallel processing is faster than serial processing).

Re Claim 10 [as best understood by the Examiner]: As to claim 10, the claim is the corresponding system claim to claim 1 respectively. The discussions are addressed with regard to claim 1.

The limitations, as recited in claim 10, "first storage means" in line 5, "calculating means" in line 8, "request means" in line 12, "acquisition means" in line 14, "second storage means" in line 16, "segmentation means" in line 18, "determination means" in line 22, "third storage means" in line 26, and "generation means" in line 30, invoke 35 U.S.C. 112, 6th paragraph.

Re Claim 11 [as best understood by the Examiner]: Deshpande further discloses the first / server computer and second computers / client computer can communicate with each other via a network / network (see Fig. 1).

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Re Claims 12-13 [as best understood by the Examiner]: As to claims 12-13, the claims are the corresponding computer readable medium claims to claim 1 respectively. The discussions are addressed with regard to claim 1.

Obviousness-Type Double Patenting Rejection

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claims 1-13 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7, 13-19, 25-30, 37, and 43-45 copending Application No. 10/10/231,206.

For example, the '206 copending Application discloses in claims 1, 13-14 and 43 a JPEG2000 encoded data generation with bidirectional network communication [similar to '007 current applications encoded data generation with client and server and

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segmentation step]; a storage means for storing segmented encoded data [similar to '007 current applications storage means], acquisition means for acquiring a user's display request [similar to '007 current applications calculation step, request step and acquisition step]; reception means [similar to '007 current applications fragmentary first encoded data], calculation means [similar to '007 current applications segmentation step], dummy data generation means [similar to '007 current applications determination and dummy storage step]; data replacement means [similar to '007 current applications determination and dummy storage step]; specifying means and generating means [similar to '007 current applications output step].

The claims 1-7, 13-19, 25-30, 37, and 43-45 of '206 copending Application are basically the same and not patentably distinct from each of the other presently claimed invention encompassed in claims 2-13.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Le Leannec et al discloses method and device for forming a derived digital signal from a compressed digital signal; Ishikawa et al discloses image processing method and its data cache method; Dekel et al discloses system and method for the lossless progressive streaming of images over a communication network; Enokida discloses method and device for image processing and storage medium; Sirohey et al discloses a method and apparatus for transmission and display of

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a compressed digitized image; Fukuda et al discloses image data communication system and image data communication method.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard Krasnic whose telephone number is (571) 270-1357. The examiner can normally be reached on Mon-Thur 8:00am-4:00pm and every other Friday 8:00am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on (571) 272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Bernard Krasnic
August 10, 2007


JINGGE WU
SUPERVISORY PATENT EXAMINER